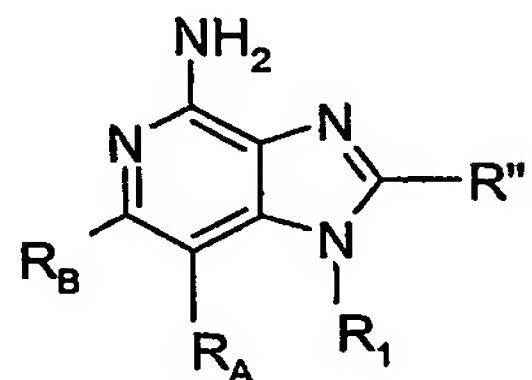


WHAT IS CLAIMED IS:

1. A compound of the following Formula I:



5

I

wherein:

- R_1 has the formula alkylene-L- R_{1-1} , alkenylene-L- R_{1-1} , or
10 alkynylene-L- R_{1-1} , wherein:
 the alkylene, alkenylene, and alkynylene groups are
 optionally interrupted with one or more -O- groups;
 L is a bond or a functional linking group; and
 R_{1-1} is a linear or branched aliphatic group having at least
15 11 carbon atoms, optionally including one or more unsaturated
 carbon-carbon bonds;
 R'' is hydrogen or a non-interfering substituent;
 R_A and R_B are each independently selected from the group consisting of:
 hydrogen,
20 halogen,
 alkyl,
 alkenyl,
 alkoxy,
 alkylthio, and
 $\text{-N}(\text{R}_3)_2$;
 25 or when taken together, R_A and R_B form a fused aryl ring or heteroaryl
 ring containing one heteroatom or a fused 5- to 7-membered saturated ring,
 optionally containing one heteroatom, wherein the heteroatom is selected from
 the group consisting of N and S, and wherein the aryl, heteroaryl, or 5- to 7-
 30 membered saturated ring is unsubstituted or substituted by one or more non-
 interfering substituents; and

each R₃ is independently selected from the group consisting of hydrogen and alkyl;

with the proviso that when L is -NH-S(O)₂- and R_A and R_B join to form an unsubstituted benzene ring, R₁₋₁ is a linear or branched aliphatic group having greater than 16 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds; and with the further proviso that when L is -NH-C(O)- and R_A and R_B join to form an unsubstituted pyridine ring, R₁₋₁ is a linear or branched aliphatic group having greater than 11 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds;

10 or a pharmaceutically acceptable salt thereof.

2. The compound or salt of claim 1 wherein when taken together, R_A and R_B form a fused 5- to 7-membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more substituents selected from the group consisting of:

halogen,
hydroxy,
alkyl,
alkenyl,
20 haloalkyl,
alkoxy,
alkylthio, and
-N(R₃)₂.

25 3. The compound or salt of claim 1 wherein R_A and R_B are each independently selected from the group consisting of:

hydrogen,
halogen,
alkyl,
30 alkenyl,

alkoxy,
alkylthio and
-N(R₃)₂.

5 4. The compound or salt of claim 1 wherein R_A and R_B form a fused aryl or heteroaryl ring.

5. The compound or salt of claim 1 wherein R_A and R_B form a fused 5- to 7-membered saturated ring.

10 6. The compound or salt of claim 1 wherein when taken together, R_A and R_B form a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R groups;

15 or when taken together, R_A and R_B form a fused 5- to 7-membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R groups; each R is independently selected from the group consisting of

halogen,

20 hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

25 alkylthio, and

-N(R₃)₂.

7. The compound or salt of claim 6 wherein R_A and R_B form a fused benzene ring which is unsubstituted.

30 8. The compound or salt of claim 6 wherein R_A and R_B form a fused pyridine ring which is unsubstituted.

9. The compound or salt of any one of claims 1 through 8 wherein R" is selected from the group consisting of:

- hydrogen;
- alkyl;
- 5 alkenyl;
- aryl;
- heteroaryl;
- heterocyclyl;
- alkylene-Y-alkyl;
- 10 alkylene-Y- alkenyl;
- alkylene-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
 - OH;
 - 15 halogen;
 - N(R₄)₂;
 - C(O)-C₁₋₁₀alkyl;
 - C(O)-O-C₁₋₁₀alkyl;
 - N₃;
 - 20 aryl;
 - heteroaryl;
 - heterocyclyl;
 - C(O)-aryl; and
 - C(O)-heteroaryl;
- 25 wherein: Y is -O- or -S(O)₀₋₂₋; and each R₄ is independently selected from the group consisting of hydrogen, C₁₋₁₀alkyl, and C₂₋₁₀alkenyl.

10. The compound or salt of any one of claims 1 through 9 wherein L is a bond or a functional linking group selected from the group consisting of
- 30 -NH-S(O)₂₋, -NH-C(O)-, -NH-C(S)-, -NH-S(O)₂-NR₃₋, -NH-C(O)-NR₃₋,
-NH-C(S)-NR₃₋, -NH-C(O)-O-, -O-, -S-, and -S(O)₂₋.

11. The compound or salt of claim 10 wherein L is a bond or a functional linking group selected from the group consisting of -NH-C(O)-, -NH-S(O)₂-, and -NH-C(O)-N(R₃)-.

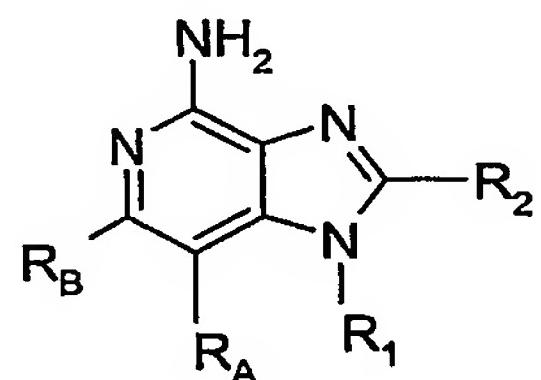
5 12. The compound or salt of any one of claims 1 through 11 wherein R₁₋₁ is a linear or branched aliphatic group having 11-20 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds.

10 13. The compound or salt of claim 12 wherein R₁₋₁ is a linear or branched aliphatic group having 12-20 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds.

14. The compound or salt of claim 13 wherein R₁₋₁ is a straight chain C₁₂-C₂₀alkyl.

15

15. A compound of the following Formula II:



20

II

wherein:

R₁ has the formula alkylene-L-R₁₋₁, alkenylene-L-R₁₋₁, or alkynylene-L-R₁₋₁, wherein:

25

the alkylene, alkenylene, and alkynylene groups are optionally interrupted with one or more -O- groups;

L is a bond or a functional linking group selected from the group consisting of -NH-S(O)₂-, -NH-C(O)-, -NH-C(S)-, -NH-S(O)₂-NR₃-, -NH-C(O)-NR₃-, -NH-C(S)-NR₃-, -NH-C(O)-O-, -O-, -S-, and -S(O)₂-; and

R_{1-1} is a linear or branched aliphatic group having at least 11 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds;

R_2 is selected from the group consisting of:

alkenyl,
alkoxy,
alkylthio, and
 $-N(R_3)_2$;

5 or when taken together, R_A and R_B form a fused aryl ring or heteroaryl ring containing one heteroatom wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R groups; or when taken together, R_A and R_B form a fused 5- to 7-membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or
10 substituted by one or more R groups; wherein R is selected from the group consisting of

halogen,
hydroxy,
alkyl,
15 alkenyl,
haloalkyl,
alkoxy,
alkylthio, and
 $-N(R_3)_2$.

20 and

R_3 is selected from the group consisting of hydrogen and alkyl; with the proviso that when L is $-NH-S(O_2)-$ and R_A and R_B join to form an unsubstituted benzene ring, R_{1-1} is a linear or branched aliphatic group having at least 16 carbon atoms, optionally including one or more unsaturated carbon-
25 carbon bonds; and with the further proviso that when L is $-NH-C(O)-$ and R_A and R_B join to form an unsubstituted pyridine ring, R_{1-1} is a linear or branched aliphatic group having greater than 11 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds;
or a pharmaceutically acceptable salt thereof.

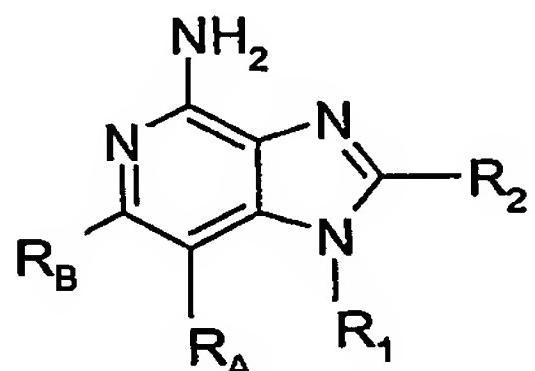
30

16. The compound or salt of claim 15 wherein R_1 has the formula alkylene-L- R_{1-1} and the alkylene is optionally interrupted with one -O- group.

17. The compound or salt of claim 16 wherein R₁ has the formula C₁₋₅alkylene-L-R₁₋₁ and the C₁₋₅alkylene is optionally interrupted with one -O- group.

5 18. The compound or salt of claim 15 wherein R₂ is selected from the group consisting of hydrogen, alkyl, and alkylene-O-alkyl.

19. A compound of the following Formula II:



10

II

wherein:

R₁ has the formula alkylene-L-R₁₋₁, alkenylene-L-R₁₋₁, or
 15 alkynylene-L-R₁₋₁, wherein:
 the alkylene, alkenylene, and alkynylene groups are
 optionally interrupted with one or more -O- groups;
 L is a bond or a functional linking group selected from the
 group consisting of -NH-S(O)₂-, -NH-C(O)-, -NH-C(S)-,
 -NH-S(O)₂-NR₃-, -NH-C(O)-NR₃-, -NH-C(S)-NR₃-,
 20 -NH-C(O)-O-, -O-, -S-, and -S(O)₂-; and

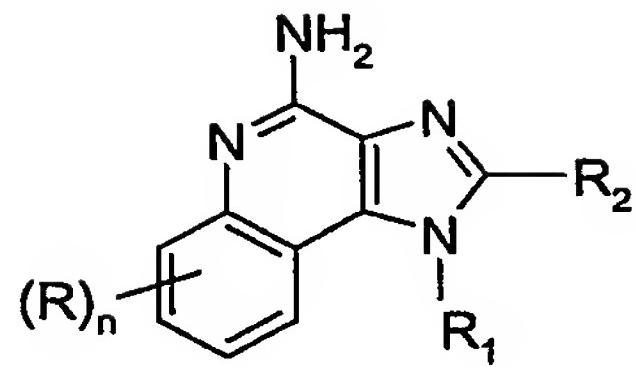
R₁₋₁ is a linear or branched aliphatic group having at least
 11 carbon atoms, optionally including one or more unsaturated
 carbon-carbon bonds;

25 R₂ is selected from the group consisting of:

hydrogen;
 alkyl;
 alkenyl;
 aryl;
 30 heteroaryl;

- heterocyclyl;
alkylene-Y-alkyl;
alkylene-Y- alkenyl;
alkylene-Y-aryl; and
5 alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
-OH;
halogen;
-N(R₄)₂;
10 -C(O)-C₁₋₁₀alkyl;
-C(O)-O-C₁₋₁₀alkyl;
-N₃;
aryl;
heteroaryl;
15 heterocyclyl;
-C(O)-aryl; and
-C(O)-heteroaryl;
wherein: Y is -O- or -S(O)₀₋₂₋; and each R₄ is independently selected from the group consisting of hydrogen,
20 C₁₋₁₀alkyl, and C₂₋₁₀alkenyl;
R_A and R_B are each independently selected from the group consisting of:
hydrogen,
halogen,
alkyl,
25 alkenyl,
alkoxy,
alkylthio, and
-N(R₃)₂; and
R₃ is selected from the group consisting of hydrogen and alkyl;
30 or a pharmaceutically acceptable salt thereof.

20. A compound of the following Formula III:



wherein:

- R₁ has the formula alkylene-L-R₁₋₁, alkenylene-L-R₁₋₁, or
5 alkynylene-L-R₁₋₁, wherein:
 - the alkylene, alkenylene, and alkynylene groups are optionally interrupted with one or more -O- groups;
 - L is a bond or a functional linking group selected from the group consisting of -NH-S(O)₂-, -NH-C(O)-, -NH-C(S)-, -NH-S(O)₂-NR₃-, -NH-C(O)-NR₃-, -NH-C(S)-NR₃-, -NH-C(O)-O-, -O-, -S-, and -S(O)₂-; and
 - R₁₋₁ is a linear or branched aliphatic group having at least 11 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds;
- 10 R is selected from the group consisting of
 - halogen,
 - hydroxy,
 - alkyl,
 - alkenyl,
- 15 haloalkyl,
- alkoxy,
- alkylthio, and
- N(R₃)₂;
- n is 0 to 4;
- 20 R₂ is selected from the group consisting of:
 - hydrogen;
 - alkyl;
 - alkenyl;
 - aryl;
- 25 heteroaryl;

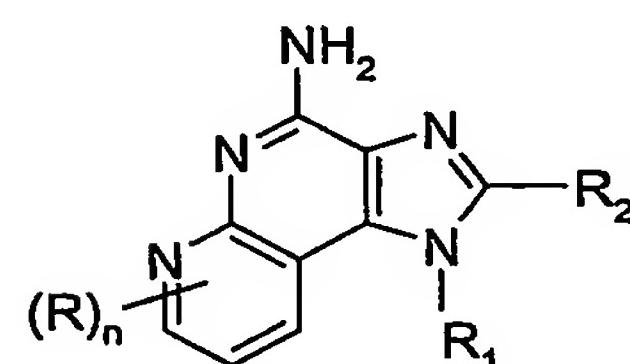
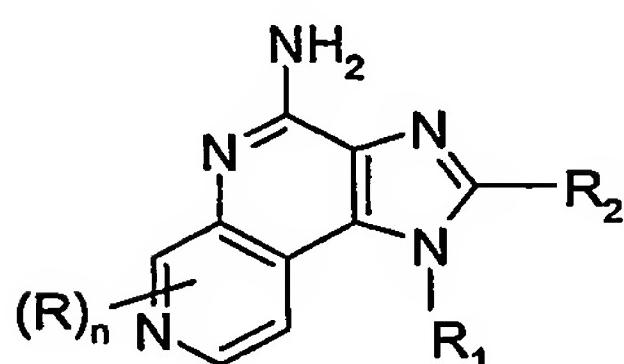
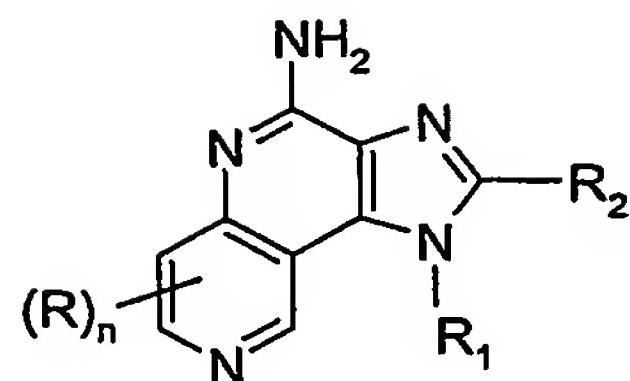
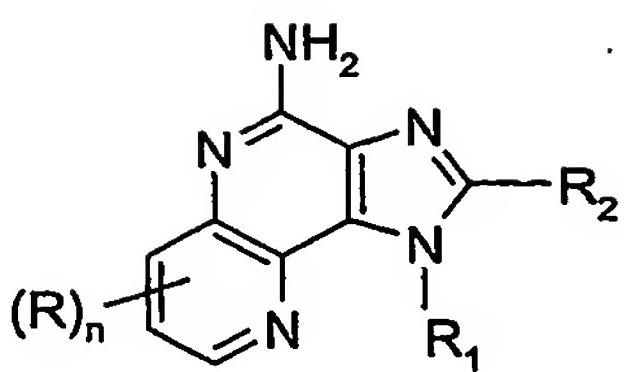
heterocyclyl;
alkylene-Y-alkyl;
alkylene-Y- alkenyl;
alkylene-Y-aryl; and
5 alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;
halogen;
-N(R₄)₂;
10 -C(O)-C₁₋₁₀alkyl;
-C(O)-O-C₁₋₁₀alkyl;
-N₃;
aryl;
heteroaryl;
15 heterocyclyl;
-C(O)-aryl; and
-C(O)-heteroaryl;

Y is -O- or -S(O)₀₋₂₋;
each R₄ is independently selected from the group consisting of hydrogen,
20 C₁₋₁₀alkyl, and C₂₋₁₀alkenyl; and
R₃ is selected from the group consisting of hydrogen and alkyl;
with the proviso that when L is -NH-S(O₂)-, and n is 0, R₁₋₁ is a linear or
branched aliphatic group having at least 16 carbon atoms, optionally including
one or more unsaturated carbon-carbon bonds;
25 or a pharmaceutically acceptable salt thereof.

21. The compound or salt of claim 20 wherein n is 0.

22. A compound selected from the group consisting of the following
30 Formulas IV, V, VI, and VII:



5

wherein:

R₁ has the formula alkylene-L-R₁₋₁, alkenylene-L-R₁₋₁, or alkynylene-L-R₁₋₁, wherein:

10

the alkylene, alkenylene, and alkynylene groups are optionally interrupted with one or more -O- groups;

L is a bond or a functional linking group selected from the group consisting of -NH-S(O)₂-, -NH-C(O)-, -NH-C(S)-, -NH-S(O)₂-NR₃-, -NH-C(O)-NR₃-, -NH-C(S)-NR₃-, -NH-C(O)-O-, -O-, -S-, and -S(O)₂-; and

15

R₁₋₁ is a linear or branched aliphatic group having at least 11 carbon atoms, optionally including one or more unsaturated carbon-carbon bonds;

20

R is selected from the group consisting of

halogen,

hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

25

alkylthio, and

-N(R₃)₂;

n is 0 or 1;

R₂ is selected from the group consisting of:

- hydrogen;
- alkyl;
- alkenyl;
- aryl;
- heteroaryl;
- heterocyclyl;
- alkylene-Y-alkyl;
- alkylene-Y- alkenyl;
- 10 alkylene-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

- OH;
- halogen;
- 15 -N(R₄)₂;
- C(O)-C₁₋₁₀alkyl;
- C(O)-O-C₁₋₁₀alkyl;
- N₃;
- aryl;
- 20 heteroaryl;
- heterocyclyl;
- C(O)-aryl; and
- C(O)-heteroaryl;

Y is -O- or -S(O)₀₋₂-;

- 25 each R₄ is independently selected from the group consisting of hydrogen, C₁₋₁₀alkyl, and C₂₋₁₀alkenyl; and

R₃ is selected from the group consisting of hydrogen and alkyl; with the proviso that when L is -NH-C(O)-, and n is 0, R₁₋₁ is a linear or branched aliphatic group having at least 12 carbon atoms, optionally including 30 one or more unsaturated carbon-carbon bonds; or a pharmaceutically acceptable salt thereof.

23. The compound or salt of claim 22 wherein n is 0.

24. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of any one of claims 1 through 23 in combination with a pharmaceutically acceptable carrier.

5

25. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of any one of claims 1 through 23 to the animal.

10

26. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 23 to the animal.

15

27. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 23 to the animal.

20

28. A method of vaccinating an animal comprising administering an effecive amount of a compound or salt of any one of claims 1 through 23 to the animal as a vaccine adjuvant.

25

29. A method of vaccinating an animal comprising administering an effecive amount of *N*-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)hexadecanamide to the animal as a vaccine adjuvant.

30. A method of vaccinating an animal comprising administering an effecive amount of *N*-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)octadecanamide to the animal as a vaccine adjuvant.

30

31. A method of vaccinating an animal comprising administering an effecive amount of *N*-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)dodecanamide to the animal as a vaccine adjuvant.

32. A method of vaccinating an animal comprising administering an effective amount of *N*-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)tetradecanamide to the animal as a vaccine adjuvant.